USSOCOM SBIR Successful Technology Pursuit

Innovative Technology

Topic Number | SOCOM03-013

Topic Title | Battery Modulation for Communications Equipment

Warfighters require a rechargeable battery that provides high energy density at a low-cost, while also being waterproof to eliminate hazards that result from water exposure. The Lithium BA-5590, is used for man-portable power, however, the battery is not rechargeable and it only has an energy density of 175 watt-hours per kilogram (W-h/kg). Other rechargeable battery solutions are limited to energy densities of roughly 120 W-h/kg. To address this need, Policell Technologies developed a safe, rechargeable battery replacement for the Lithium BA-5590. The battery provides an energy density of over 175 W-h/kg and is less expensive than the Lithium BA-5590. In addition, Policell's battery does not contain metallic lithium, and it is environmentally benign. The technology is based on the company's unique bondable separator membrane and advanced electrolyte, using conventional lithium-ion battery electrodes.

Company and Contact Information

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Military and Commercial Significance

The company has received over $1 million in Phase I and Phase II Small Business Innovation Research (SBIR) funding from the Department of Defense (DoD) for its battery technology.

Under the DoD SBIR Phase II effort, Policell delivered a prototype for testing.

In 2008, Policell licensed its technology to Planar Energy Devices.

In addition to communications battery applications, the technology is applicable to electric vehicles and any other large format battery applications that require higher energy densities.

Last updated: 03/18/2014